

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853621

Luminaire Tested: SQ2-BBN-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853621
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-100U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

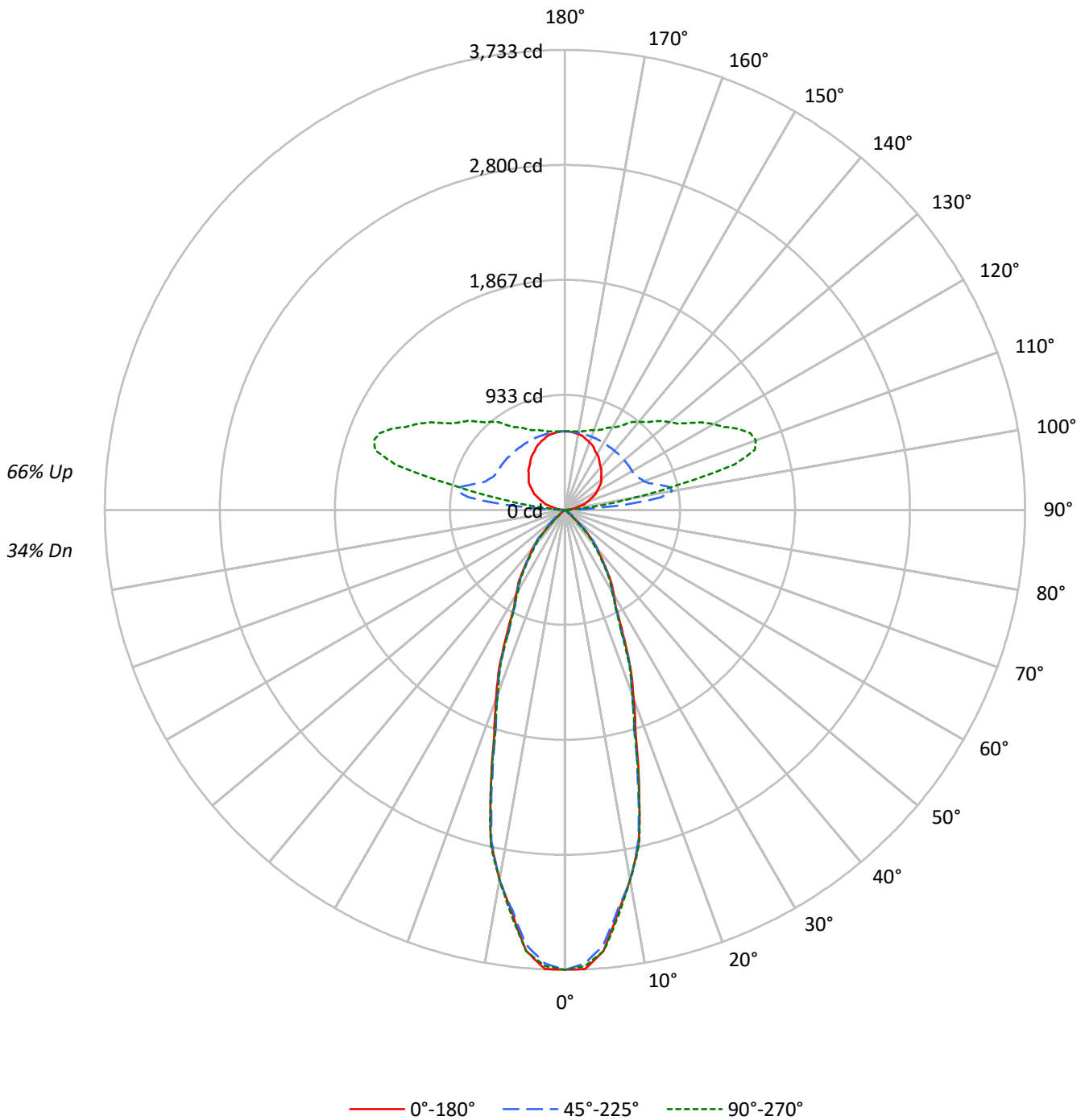
Lumens per Lamp: N/A
Luminaire Lumens: 5982.4 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34				
1	96	92	89	86	86	84	81	79	67	66	64	53	52	51	39	38	38	32				
2	89	83	78	74	80	75	71	68	61	59	56	49	47	45	37	36	35	30				
3	82	75	69	64	75	68	63	59	56	53	50	45	43	41	34	33	32	28				
4	77	68	61	56	69	62	57	52	51	48	45	42	39	37	32	31	30	26				
5	71	62	55	50	65	57	51	47	47	43	40	39	36	34	31	29	28	24				
6	67	56	50	45	61	52	46	42	44	40	37	36	33	31	29	27	26	23				
7	62	52	45	40	57	48	42	38	41	36	33	34	31	29	27	26	24	22				
8	58	48	41	37	53	44	39	35	38	34	31	32	29	27	26	24	23	21				
9	55	44	38	34	50	41	36	32	35	31	28	30	27	25	25	23	22	19				
10	52	41	35	31	48	39	33	29	33	29	26	28	25	23	23	22	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	60272	60272	60272
5°	58256	57537	58289
10°	49996	50029	49996
15°	38806	38188	38716
20°	28007	27429	27405
25°	19858	19067	19103
30°	14775	14398	14260
35°	11497	11205	10965
40°	8507	8294	7771
45°	4348	5329	3503
50°	947	2941	693
55°	265	1194	208
60°	42	239	23
65°	0	27	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5329 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.8	5.4
10°-20°	636.4	10.6
20°-30°	513.4	8.6
30°-40°	356.6	6.0
40°-50°	164.7	2.8
50°-60°	23.1	0.4
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	266.0	4.4
100°-110°	804.4	13.4
110°-120°	785.2	13.1
120°-130°	641.7	10.7
130°-140°	523.8	8.8
140°-150°	407.7	6.8
150°-160°	293.9	4.9
160°-170°	179.9	3.0
170°-180°	60.8	1.0
0°-30°	1472.5	24.6
0°-40°	1829.2	30.6
0°-60°	2017.1	33.7
0°-90°	2019.3	33.8
90°-120°	1855.6	31.0
90°-150°	3428.7	57.3
90°-180°	3963.0	66.2
0°-180°	5982.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3733	3733	3733	3733	3733	
5°	3594	3575	3550	3594	3596	323
15°	2322	2351	2285	2317	2316	639
25°	1115	1090	1070	1086	1072	522
35°	583	583	568	558	556	365
45°	190	227	233	212	153	154
55°	9	15	42	12	7	12
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	12	7	6	2
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3733.0	3733.0	3733.0	3733.0	3733.0
2.5°	3730.8	3717.1	3684.5	3713.9	3705.0
5°	3594.4	3575.3	3550.0	3593.8	3596.4
7.5°	3293.3	3299.5	3275.9	3324.2	3319.1
10°	3049.5	3054.1	3051.5	3067.2	3049.5
12.5°	2766.9	2785.2	2750.7	2775.0	2782.5
15°	2321.6	2351.2	2284.6	2316.9	2316.2
17.5°	1904.0	1900.9	1866.6	1872.6	1870.6
20°	1630.0	1625.4	1596.4	1591.8	1595.0
22.5°	1395.4	1387.6	1377.3	1365.7	1370.1
25°	1114.7	1089.7	1070.3	1086.1	1072.3
27.5°	894.7	894.3	878.3	880.1	882.8
30°	792.5	787.9	772.3	772.8	764.9
32.5°	701.5	704.8	685.6	681.8	673.9
35°	583.3	583.3	568.5	558.3	556.3
37.5°	473.6	472.4	461.9	447.5	442.4
40°	403.6	400.3	393.5	375.9	368.7
42.5°	324.0	332.8	326.3	308.5	297.6
45°	190.4	227.2	233.4	211.9	153.4
47.5°	81.8	122.3	155.8	101.6	52.9
50°	37.7	69.2	117.1	49.9	27.6
52.5°	22.1	37.9	86.9	29.2	17.4
55°	9.4	14.7	42.4	12.0	7.4
57.5°	3.5	6.4	16.0	5.2	2.8
60°	1.3	2.7	7.4	2.0	0.7
62.5°	0.3	1.1	3.6	0.9	0.1
65°	0.0	0.0	0.7	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.4	2.4	1.4	1.2
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00